

ADOPTION OF TOUCH 'N GO eWALLET AMONG POLYTECHNIC METRO JOHOR BAHRU STUDENTS

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ABSTRACT

Objective: This study aims to examine the key determinants influencing students' adoption and continued use of the Touch 'n Go eWallet, guided by the Technology Acceptance Model (TAM).

Research Method: A quantitative survey approach was employed to analyze the relationships among perceived usefulness, ease of use, perceived risk, and promotional offers in shaping students' behavioral intentions toward e-wallet usage.

Findings: The findings reveal that perceived usefulness and ease of use significantly enhance students' intention to adopt and continue using the e-wallet, while perceived risk exerts a minor negative effect. Promotional incentives, such as discounts and cashback, further strengthen short-term engagement despite security concerns.

Originality: This study extends the TAM framework by integrating perceived risk and promotional factors, offering valuable insights into sustaining digital payment adoption among young consumers in Malaysia.

Keywords: Touch 'n Go eWallet, Technology Acceptance Model (TAM), perceived usefulness, perceived risk, promotional offers.

1. INTRODUCTION

The rapid development of financial technology (Fintech) has recently produced various types of inventions that make human life easier. These include online banking services, payments using QR code scans and so on. In the past, financial transactions such as payments and money transfers had to be carried out completely physically. Paper money had to be carried everywhere to fulfill various tasks in daily life. However, a person can now leave the house without having to carry any money. A smartphone with a quality internet connection is considered sufficient for most contemporary needs. The same goes for businesses that can now conduct online buying and selling transactions very quickly.

Touch 'n Go eWallet (TNG eWallet) launched in July 2017. It has quickly become Malaysia's most popular digital wallet, allowing payments at over 280,000 merchant locations across the country. Users can use it for everyday needs like tolls, parking, e-hailing services, utility bill payments, and shopping. This reflects how financial technology (Fintech) is becoming a part of daily life. The growth of e-wallet usage coincides with broader trends in globalization and digital changes. Changing lifestyles and more people using smartphones are reshaping how we interact with financial services (Metro, 2020).

E-wallets are digital wallets that let users link debit or credit cards for easy transactions. They are one of the most significant tech improvements of the 21st century (Karim et al., 2020; Digital Wallet, 2019). Their main goal is to make payment processes simpler and faster, improving how financial transactions work. In Malaysia, these systems are encouraged to decrease cash reliance and promote a more digital economy (Liang, 2022).

Despite the advantages and tech improvements, not everyone adopts e-wallets at the same rate. Recent research with 150 Millennials and Gen Z respondents showed that factors like perceived usefulness and user attitude greatly affect the adoption of the TNG e-wallet. Meanwhile, concerns about security and social influence seem to matter less (Gan, 2024). This indicates that practical benefits are more crucial than external pressures or fears when adopting new financial technologies.

The Malaysian fintech landscape, which includes TNG e-wallet, has already made businesses more efficient, improved digital access, and increased consumer convenience. Strangely, however, adoption patterns vary among students, who typically possess strong digital skills and frequently use smartphones. Despite being considered digital natives, students' actual usage of digital wallets can vary depending on their personal preferences, perceived risks, lack of feature knowledge, or other elements like campus culture and spending patterns.

This study intends to investigate the precise elements that support or impede students at Politeknik METrO Johor Bahru's adoption and usage of Touch 'n Go e-wallet in order to close this gap. By concentrating on this group, the study intends to provide insights to help educators and fintech providers better address the needs and concerns of students while also expanding knowledge of technology acceptance in an educational setting.

The objectives of this study are to examine the influence of perceived usefulness and perceived ease of use on students' intention to adopt the Touch 'n Go eWallet, analyze the impact of perceived risk on their adoption behavior, investigate how consumers' attitudes affect the adoption of the Touch 'n Go eWallet among students, and evaluate the effectiveness of promotional offers in encouraging regular usage of the eWallet.

The research questions guiding this study are: How do perceived usefulness and perceived ease of use influence students' intention to adopt the Touch 'n Go eWallet? How does perceived risk affect students' adoption behavior of the Touch 'n Go eWallet? In what ways does consumers' attitude influence the adoption of the Touch 'n Go eWallet among students? Additionally, are promotional offers effective in encouraging regular use of the Touch 'n Go eWallet among students?

2. LITERATURE REVIEW

2.1 FINTECH AND DIGITAL WALLETS IN MALAYSIA

An e-wallet is defined as an application that eliminates the need for physical cash during transactions. Essentially, an e-wallet is a digital wallet enabling users to make payments and conduct online transactions (Ming et al., 2020). Ming et al. (2020) observed that e-wallets are a form of Fintech that emerged amidst the ongoing digitalization globally. Like other technological innovations, e-wallets have simplified and accelerated both online and offline transactions.

In Malaysia, fintech has rapidly grown over the past few years, changing how people manage, save, and spend their money. Fintech solutions, including online banking apps, peer-to-peer lending, and digital insurance, aim to make financial services easier to access, more convenient, and inclusive, especially for younger users and underserved communities. Regulatory initiatives and strong mobile internet coverage have supported this growth, creating a space where digital financial services can flourish alongside traditional banks.

The extensive use of e-wallet such as Touch 'n Go e-wallet, Boost, and Grab Pay is one obvious outcome of this fintech boom. Through a smartphone app, users of these e-wallets can make payments, send and receive money, shop online, and earn rewards. Their simplicity, regular promotions, and ease of cashless transactions whether paying at food stands or adding money to public transport cards have made them particularly well-liked by young consumers and students. Digital wallets continue to influence everyday spending patterns and advance financial inclusion as Malaysia approaches a cashless society.

2.2 TECHNOLOGY ACCEPTANCE MODEL (TAM)

The Technology Acceptance Model (TAM), according to Davis (1989), has been used to explain why students are increasingly using digital payment methods. According to TAM, a user's intention to adopt technology is significantly influenced by perceived usefulness (PU) and perceived ease of use (PEOU). According to Chong et al. (2022), Malaysian university students are more likely to use e-wallets if they believe these services can save time and make daily transactions easier. The relevance of TAM in the fintech context is further supported by Gan's (2024) demonstration that young adults' likelihood of continuing to use e-wallet applications is significantly influenced by how easy it is to navigate these applications.

Online banking, e-learning platforms, mobile apps, and, more recently, e-wallets like Touch 'n Go in Malaysia are just a few of the contexts in which TAM has been utilized. It is a well-liked option for researchers and practitioners due to its clear-cut nature and strong evidence. They use it to determine what motivates or deters people from embracing new technology. By understanding factors like usefulness and ease of use, developers and marketers can create and promote digital solutions that align with users' needs and boost acceptance, especially among students and young consumers.

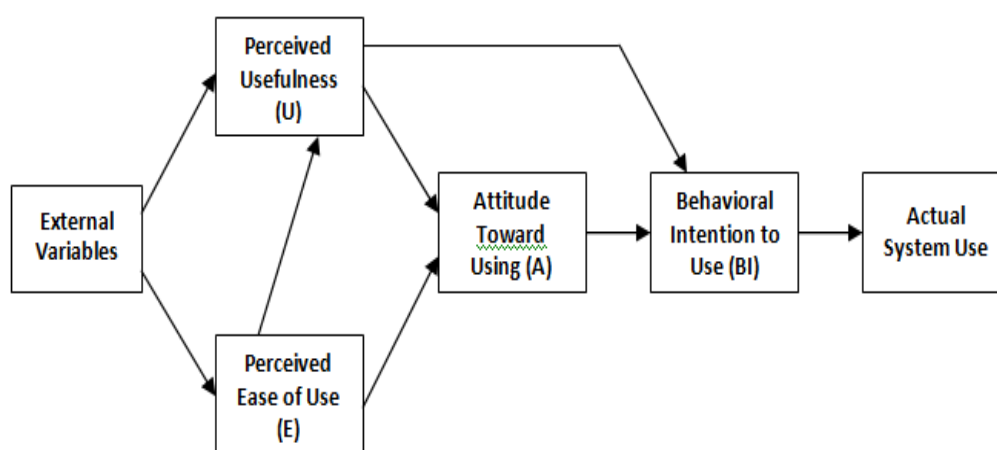


Figure 1: Technology Acceptance Model (TAM)

Source: (Davis, 1989)

2.3 FACTORS SHAPING STUDENT ADOPTION OF TOUCH 'N GO EWALLET"

Understanding how perceived usefulness and perceived ease of use influence students' intention to adopt the Touch 'n Go eWallet lies at the heart of this study and is grounded in the Technology Acceptance Model (TAM). Davis (1989) characterizes perceived usefulness as the extent to which an individual believes that a particular technology will enhance the performance of their daily tasks; perceived ease of use, in turn, represents the degree to which a person believes that using the technology will be free of effort. Earlier investigations in Malaysia have shown that students are considerably more likely to adopt e-wallets when they perceive those tools as capable of saving time and as straightforward to operate (Chong et al., 2022; Gan, 2024). These findings underscore the necessity of developing fintech solutions that integrate smoothly into students' existing routines.

Perception of risk is yet another significant attribute that affects adoption (often as a barrier in the presence of functional benefits). Students may also opt not to fully adopt e-wallets due to financial fraud, privacy violation, or unauthorized transaction concerns (Karim et al., 2020). Research by Lim et al. (2021) find higher levels of perceived risk related to technology adoption amongst young users decrease the probability of adoption even if users believe in the usefulness of the technology, or delay its routine use. These concerns could be mitigated with visible security controls and education for users, thus increasing trust and adoption.

Besides practical considerations, the attitude of the students towards the adoption of the e-wallet is considered to be an important factor (Takojobeni et al., 2003). Ajzen (1991) proposes that attitude toward technology explains the general positive or negative evaluation that a person has toward a technology, and is an antecedent of behavioral intention. However, if students perceive an e-wallet to be useful and easy to use but have a negative mindset (e.g., that it is unnecessary or risky), it may still deter its effective adoption (Venkatesh et al., 2012). On the other hand, developing a positive attitude through precise information, peer pressure or brand position, will promote greater detail of use, but also enhance uniformity while the product becomes more popular.

Marketing promotions like cashback bonuses, discounts, and reward points also facilitate students to incorporate e-wallets for everyday expenditures. As Gan (2024) observes the incentive structure of these promotion schemes may convert hedonistic users to regular users, in the light of their responsiveness of price and budget dips. When e-wallet transactions become instantly and directly rewarding, fintech will expand its use-cases and encourage routine usage, so that the e-wallet becomes as much a habit as is pulling out cash.

2.4 ADDITIONAL DETERMINANTS IN FINTECH ADOPTION

Along with the TAM constructs, some other determinants are also social influence, relationship with user's lifestyle, and enjoyment (Venkatesh et al., 2012). These determinants emphasize that the adoption of Fintech is multidimensional and functional, as well as experiential. In particular, social influence pertains to family, friends, or peers who use e-wallets, while compatibility refers to how well the e-wallet integrates into users' daily activities and overall routine. Perceived enjoyment relates to the enjoyment or satisfaction concepts users derive from engaging with the app, stimulating user interfaces, or even gamified reward systems, all of which can enhance adoption behavior.

In addition to perceived usefulness and perceived ease of use, fintech adoption is influenced by the more personal and experiential qualities that contribute to the technology being perceived as relevant to the user and interesting to use. Social influence is highly relevant, because students tend to adopt e-wallets when their social connections (e.g. friends, family or people surrounding them) have already been using them, and the situation creates trust and conformity.

Being compatible with daily life also counts students are more inclined to use an e-wallet that easily integrates with habits like purchasing food on campus, shopping online and paying for transport. Furthermore, perceived enjoyment contributes to an element of hedonic appeal that customers derive when using the e-wallet, where it is not only a behavioral facilitator but enjoyable or pleasurable because of its visually appealing app design, interactivity features, and having rewards gamified. All of these drivers suggest that the adoption of fintech is not only about functionality but about how well the service fits in and feels social and enjoyable in users' everyday lives.

3. METHODOLOGY

This study adopted a descriptive quantitative design and used a questionnaire as the main data collection instrument. The study focused on students from Politeknik METrO Johor Bahru, with 95 students participating as respondents. The target population comprised 120 students enrolled at Politeknik METrO Johor Bahru. Respondents were selected using convenience sampling because participants were readily accessible and willing to take part during the data collection period. Based on the Krejcie and Morgan (1970) sample size determination table, a minimum of 92 respondents was required; therefore, the achieved sample of 95 respondents was sufficient for analysis.

Data were collected using a structured questionnaire consisting of 23 items designed to measure factors influencing students' adoption and usage of the Touch 'n

Go e-wallet. The instrument included a demographic section and construct-based sections aligned with the research questions.

- **Section A (Demographics):** Gender, age group, programme, semester, monthly allowance, and prior use of the Touch 'n Go e-wallet were collected to profile respondents and provide context for interpreting differences in adoption patterns.
- **Section B (Items 1-9):** Perceived usefulness, perceived ease of use, and intention to adopt, assessing perceived practicality, user-friendliness, and willingness to use or recommend the e-wallet.
- **Section C (Items 10-14):** Perceived risk, measuring concerns about fraud, transaction errors, and data security, and whether these concerns discourage regular use.
- **Section D (Items 15-18):** Attitude towards e-wallet usage, focusing on respondents' feelings about digital payments and lifestyle fit.
- **Section E (Items 19-23):** Promotional offers, examining whether cashback, discounts, and exclusive deals encourage more frequent usage.

All construct items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data analysis involved both descriptive and inferential statistics to ensure alignment with the study objectives and reported findings. Descriptive statistics were used to summarise respondent characteristics and to describe responses across constructs using mean and standard deviation.

For inferential analysis, Pearson correlation was applied to examine relationships between the key factors (perceived usefulness and ease of use, perceived risk, attitude, and promotional offers) and students' intention and frequency of e-wallet use. Simple linear regression was then used where appropriate to estimate predictive effects, consistent with the reporting of regression coefficients in the results section (for example, ease of use predicting intention and promotion effectiveness predicting frequency of use).

4. RESULTS AND ANALYSIS

4.1 INTRODUCTION

The findings of data analysis on the variables affecting METrO Johor Bahru Polytechnic students' use of Touch 'n Go e-wallet are presented in this chapter. Descriptive statistics, conclusions, and a discussion of the primary research questions are all included in the analysis.

4.2 DESCRIPTIVE ANALYSIS

4.2.1 RESPONDENT DEMOGRAPHIC PROFILE STATISTICS

A total of 95 respondents were involved, consisting of students from various study programs and semester levels. The majority were female students (66.3%), aged 18-20 years (62.1%). The most widely represented program was Diploma in Entrepreneurship (44.2%), followed by Diploma in Islamic Banking and Finance (29.5%). The majority of respondents were in Semester 5 (47.4%) and most received a monthly allowance under RM300 or between RM300–RM500.

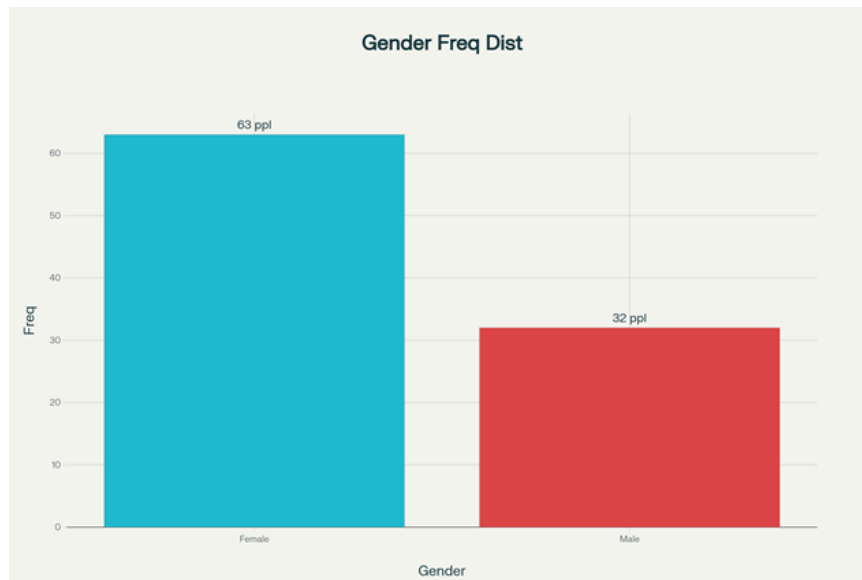


Figure 2: Distribution of Demographic Characteristics Among Respondents

4.2.2 E-WALLET USAGE PRACTICES AND PERCEPTIONS

The findings demonstrate an impressive degree of student adoption, with over 90% of respondents having used Touch 'n Go e-wallet. This result demonstrates how younger people, particularly those pursuing postsecondary education, are becoming more receptive to digital payment methods. According to recent research by Chong, Lo, and Chin (2020), Gen Z is a digital native group that is very flexible and passionate about mobile financial technology. Because they are used to using smartphones and prefer cashless transactions, students are more likely to integrate fintech into their daily lives (Zaini et al., 2023).

Effective market penetration and an increasing reliance on cashless payment methods are reflected in the high usage rate. As adoption increases, service providers like Touch 'n Go need to prioritize maintaining user trust and ensuring consistent service reliability. This is particularly crucial for the younger generation, who are accustomed to flawless digital experiences and generally have a lower threshold for technical disruptions.

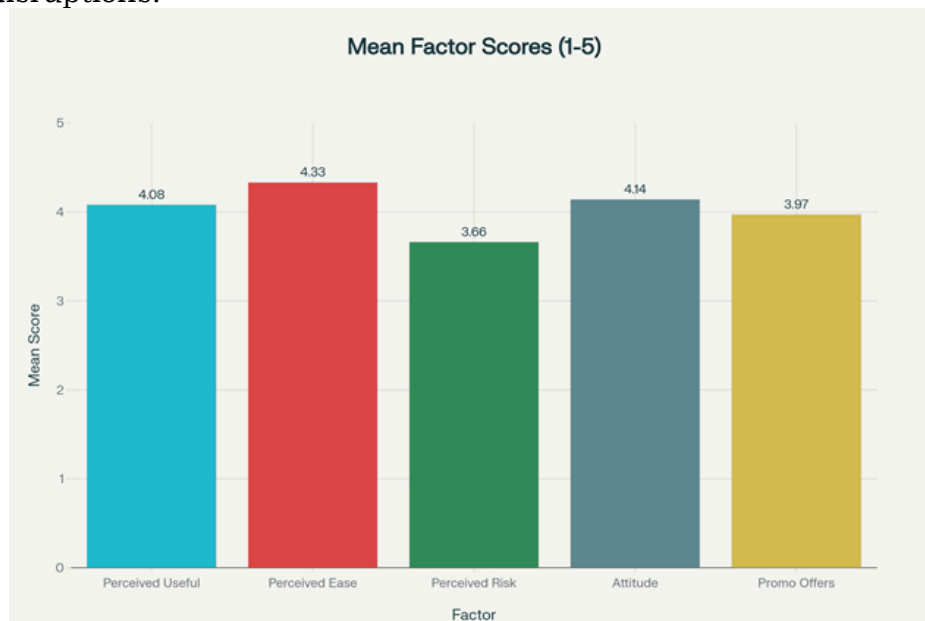


Figure 3: Mean factor scores of perceived usefulness, ease of use, risk, attitude, and promotional offers among students using Touch 'n Go e-wallet.

Table 1: Pearson Correlation Between Key Factors and Intention to Use (N = 95)

Factor	r	Sig. (p)	Interpretation
Perceived Usefulness & Ease of Use	0.73	p < 0.001	Strong positive
Perceived Risk	-0.20	p < 0.05	Weak negative
Attitude	0.70	p < 0.001	Strong positive
Promotional Offers	0.47	p < 0.001	Moderate positive

Notes: Pearson correlation (two-tailed). p < 0.05, p < 0.01, p < 0.001.

Table 1 indicates that the key factors examined are significantly associated with students' intention to use the Touch 'n Go e-wallet. Perceived usefulness and ease of use shows the strongest positive relationship with intention ($r = 0.73$, $p < 0.001$), suggesting that students are more likely to intend to use the e-wallet when they perceive it as beneficial and easy to operate. Attitude also demonstrates a strong positive correlation with intention ($r = 0.70$, $p < 0.001$), indicating that favourable feelings and acceptance of digital payments are closely linked to a stronger intention to adopt the e-wallet.

Promotional offers are moderately and positively correlated with intention ($r = 0.47$, $p < 0.001$), implying that incentives such as cashback and discounts can encourage adoption, although their influence is less pronounced than usefulness, ease of use, and attitude. In contrast, perceived risk shows a weak but significant negative relationship with intention ($r = -0.20$, $p < 0.05$), meaning that concerns about fraud, transaction errors, or data security tend to reduce students' intention to use the e-wallet. Overall, the pattern of correlations suggests that adoption intention is primarily driven by perceived benefits, usability, and positive attitudes, while risk perceptions act as a smaller but meaningful deterrent.

4.3 INFERENCE ANALYSIS BASED ON RESEARCH QUESTIONS

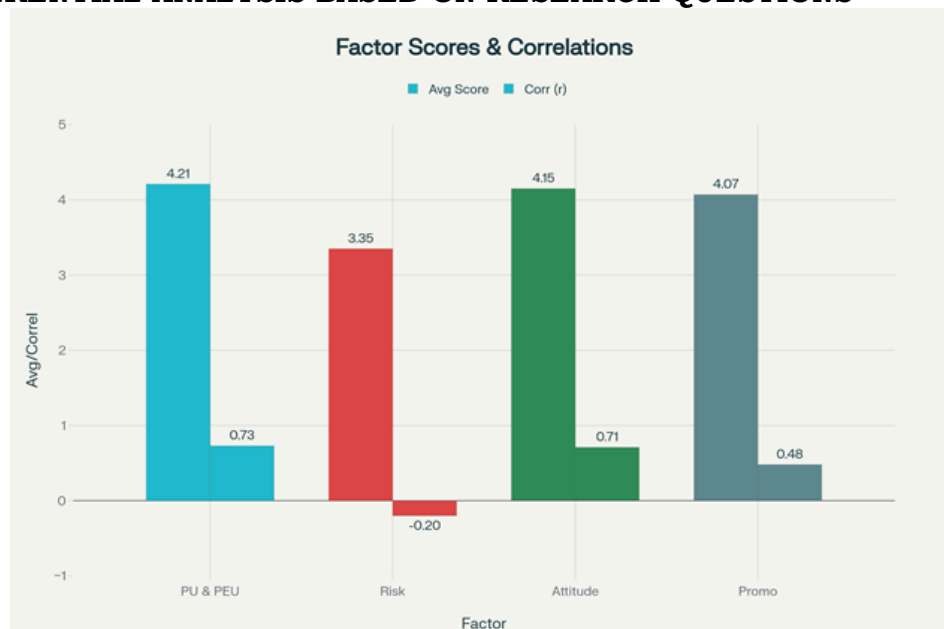


Figure 4: Average Likert scores and Pearson correlation coefficients (r) for factors influencing intention to use Touch 'n Go e-wallet among students.

The results of the study show that perceived utility and usability have the biggest effects on students' decisions to accept and continue using the Touch 'n Go e-wallet. The strongest positive correlations and highest average scores for these two factors make it clear that students are more likely to use the e-wallet if they find it practical and easy to use in their daily lives. This supports the core ideas of the Technology

Acceptance Model (TAM), which holds that if a technology appears useful and simple to use, people will adopt it.

Another important factor is how students feel about digital payments. When students are at ease and confident using e-wallets, they are more likely to do so on a regular basis. This demonstrates that, in addition to technical features, emotional and personal comfort with technology can support long-term adoption. Conversely, perceived risk, such as worries about data privacy or fraud, only displayed a weak negative correlation and a moderate score. This indicates that risk does not seem to be a significant obstacle to adoption, despite the fact that some students are cautious. The majority of students appear to have enough faith in the system to continue using it, particularly when the advantages are obvious.

Finally, it was discovered that promotional offers like cashback and discounts were a useful bonus factor. Although they are not the primary driver of adoption, these incentives motivate students to use the e-wallet more regularly, particularly those who value saving money or are frugal. It keeps students interested by providing a fun and useful incentives.

4.3.1 INFLUENCE OF USABILITY AND EASE OF USE ON INTENTION TO USE

Perceived usefulness/ease of use and intention to use were found to be strongly and significantly correlated by Pearson correlation ($r = 0.73$, $p < 0.01$). According to simple regression, the intention to use or keep using an e-wallet increased by 0.61 units for every unit increase in the ease of use score. This is in line with the fundamental ideas of the Technology Acceptance Model (TAM), which finds that these two elements have the greatest impact on whether or not users will embrace and stick with a technology (Venkatesh & Davis, 2000). According to the study, students believe that the e-wallet not only simplifies financial transactions but also blends in perfectly with their daily schedules.

Respondents showed strong agreement with statements about ease of use, with average scores of 4.22 for "facilitates daily payments" and 4.31 for "easy to use." These results suggest that a significant portion of users find the Touch 'n Go e-wallet to be user-friendly and useful for everyday use. The platform's ease of use appears to be one of its key benefits. The findings are consistent with the Technology Acceptance Model (TAM), which emphasizes that when users perceive a system to be easy to use, they are more likely to accept and maintain it (Venkatesh & Davis, 2000). Recent studies support this view; for example, Lim et al. (2021) and Tan et al. (2022) found that simple navigation and user-friendly, uncomplicated designs were essential in encouraging Malaysian youth to use digital payment apps. Current research indicates that the Touch 'n Go e-wallet app is designed to be user-friendly and intuitive. Because it eliminates common annoyances and reduces the mental effort required to make payments, users are more likely to use it frequently in their daily lives.

On average, items linked to perceived benefits, such as "facilitates financial affairs" (4.18) and "useful for online and offline transactions" (4.24), received high scores. These results suggest that users value the Touch 'n Go e-wallet's ability to accept a range of payment methods. Given that it accommodates both digital and physical spending needs, the platform seems to be a helpful financial tool in students' daily lives. Similar findings were made by Hashim and Noor (2021), who noted that e-wallets give young users a sense of financial independence. Similarly, Chong et al. (2019) found that the primary reasons why users continued to use these platforms over time were speed and ease of use. These benefits demonstrate how important perceived utility is in influencing people to accept and keep using new technology. To maintain long-term engagement, it could be advantageous to incorporate features that go beyond straightforward transactions. Features like spending trackers or financial advice tailored to students, for example, could boost the app's worth and motivate younger users to handle their money better.

4.3.2 THE EFFECT OF RISK PERCEPTION ON USAGE BEHAVIOR

Correlation analysis, however, showed that usage intentions and risk factors had a somewhat negative relationship ($r = -0.20$, $p < 0.05$). However, this value is low. This implies that if students are more concerned about fraud, security flaws, or data privacy, they are slightly less likely to continue using the app. Despite having a weaker correlation than the others, this one still raises serious questions. Risk is present and has a slight effect on the decline in usage, but it is not the main reason why students quit using this app.

Although the majority of respondents had generally positive opinions, some expressed moderate concern about security, with average scores ranging from 3.26 to 3.43. This suggests that users are a little cautious, especially when it comes to issues like fraud risk and data privacy. Although more Malaysians are using digital payment systems, some users are still hesitant to fully trust the technology because they are worried about scams and data leaks, according to Musa et al. (2021). Similarly, Ting et al. (2020) pointed out that if users think the system is risky, they might become cautious or even stop using it. This is particularly true for younger users, who are typically eager to try new technology but equally quick to stop using it if they feel that their trust has been betrayed.

This research suggests that Touch 'n Go and similar platforms should improve their security procedures, be more transparent, and make it clear how they protect users. They can help users become more confident and trustworthy by doing this, especially those who may still be worried about the security of digital payments.

Some international studies indicate a more cautious adoption pattern, which contrasts with the findings of this study. For instance, despite a high level of technological readiness, users remained hesitant because of privacy risks and unclear support during disputes, according to a study conducted in South Korea by Kim and Park (2021). This demonstrates that although trust and intention are growing in the Malaysian context, user confidence in fintech is still fragile and must be continuously nurtured.

4.3.3 INFLUENCE OF ATTITUDE ON USAGE

Additionally, there was a strong positive correlation between attitude towards the e-wallet and both intention and frequency of use ($r = 0.69-0.72$, $p < 0.01$). This implies that students are more likely to use digital payment systems regularly if they have a favorable opinion of them and believe they are contemporary, practical, and compatible with their way of life. This supports the notion that personal values and lifestyle identity, in addition to function, are what motivate people to adopt technology.

With average scores of 4.21 for "suits lifestyle" and 4.19 for "enjoy modernity," student responses demonstrated a strong positive attitude towards the Touch 'n Go e-wallet. These findings imply that the e-wallet is a good fit for students' self-perception and desired digital lifestyle.

This is supported by Zaini et al. (2023), who found that young consumers often associate fintech tools with modern living, progress, and efficiency. Young people's acceptance of e-wallets is also impacted by how they look and are perceived, as it allows them to feel like they belong to a tech-savvy and progressive community (Abdullah and Suhaimi, 2022).

From a critical standpoint, these findings show that, in addition to the app's utility, emotions, identity, and social meaning are significant considerations. Fintech companies may find it beneficial to integrate lifestyle branding and personalization features to maintain user engagement and reinforce these positive sentiments.

4.3.4 PROMOTION EFFECTIVENESS IN ENCOURAGING USAGE

The frequency of use and the perception of promotion have a moderately strong correlation ($r = 0.48$, $p < 0.01$). The regression value indicates that for every unit increase in the promotion effectiveness score, the frequency of usage will increase by

0.32 units. It proves that discounts, cashback, and in-app promotions do significantly affect how often students use the platform.

This speaks to the real-world financial worries of students, who are frequently frugal and quick to seize any chance for savings. However, in comparison to positive attitude and ease of use, it is not the primary motivating factor.

With an average score of 4.11, it was discovered that promotions such as cashback, discounts, and in-app deals had a positive impact on how frequently students used the Touch 'n Go e-wallet. Additionally, a large number of users stated that they frequently check the app for new deals (mean = 3.98). Given that many students are frugal and value cost-cutting measures, these results imply that promotional tactics are a useful means of maintaining student interest. This is in line with research by Yap and Loo (2020), which demonstrated that strategically designed promotions can encourage Malaysian e-wallet users to make more frequent transactions. Similarly, Nawi et al. (2019) emphasized that consistent rewards encourage user loyalty. However, if users don't also believe that the app provides genuine value and a positive overall experience, relying too heavily on rewards like cashback may eventually diminish genuine brand loyalty.

From a critical standpoint, while promotions and offers are helpful in drawing users in, maintaining their interest over time is a greater challenge. Discounts might not be enough to achieve this; innovation, a more customized experience, and steady enhancements in service quality are needed.

5. CONCLUSION AND RECOMMENDATION

With more than 90% of respondents saying they have used Touch 'n Go e-wallet, this study demonstrates how popular it is among students. The high adoption rate indicates how accustomed and at ease today's youth are with digital tools, particularly those that facilitate and expedite routine tasks like payments. This confirms earlier research showing younger users, especially college students, are quick to embrace technology that works with their daily schedules (Chong, Lo & Chin, 2020; Zaini et al., 2023).

Students' intention and frequency of use of the e-wallet are greatly influenced by its usefulness and ease of use, which are the primary reasons they keep using it. For both online and offline payments, many students believe the app is easy to use, practical, and beneficial. These favorable sentiments are closely related to their attitudes, as many view the e-wallet as a tool that complements their contemporary way of life and digital identity. Although they existed, security concerns did not pose a significant obstacle. They are still significant, though, in cases where certain students are concerned about fraud or data leaks. These issues draw attention to the necessity of better transparency and security features, as well as more effective communication regarding the protection of user data. Frequent use was also found to be encouraged by promotional offers like discounts and cashback. Promotions aren't the best factor, but they do help keep students interested, especially since many of them are frugal. However, if users believe the app is only useful during sales, relying too heavily on promotions may erode long-term loyalty.

Overall, the findings indicate that perceived usefulness, ease of use, and positive attitudes are the main catalysts for the adoption and continued use of Touch 'n Go e-wallet among polytechnic students. Perceived risk is present as a minor deterrent, while promotion serves as an important secondary incentive, especially in increasing frequency of use.

These findings are in line with the literature that emphasizes the importance of usability, convenience, and added value (such as discounts/cashback) in accepting digital payments. The practical implications suggest that e-wallet providers should focus on promoting the benefits of the application, increasing user-friendliness, improving security aspects, and increasing targeted promotions.

Based on these findings, several practical recommendations are proposed:

1. **Enhance Usability and Simplicity:** To make the user interface even more intuitive, service providers like Touch 'n Go should keep making improvements. The app's daily relevance might be raised by including features that assist students in managing their money, like spending summaries or budgeting tools.
2. **Build Long-Term Trust Through Transparency:** It should be a top priority to communicate clearly about user rights, fraud prevention, and data privacy. The mild worries that students still have can be allayed with frequent updates and public announcements about security initiatives.
3. **Embrace Personalization and Lifestyle Branding:** Companies could improve engagement by providing personalized user experiences, like interface themes, spending challenges, or reward systems that align with individual habits, as many students view their e-wallets as an integral part of who they are.
4. **Use Promotions Wisely:** Promotions work well, especially when it comes to attracting or reactivating users. However, they ought to be offset by real, long-term advantages like better support, speedier services, or loyalty programs that provide more than just cashback.
5. **Collaborate with Education Institutions:** Touch 'n Go may work with educational institutions to promote safe digital payment methods and financial literacy, elevating the app from a basic payment tool to something more, considering how often students use it.

To sum up, Touch 'n Go e-wallet is already a popular choice among students, mostly because it makes daily payments easy and complements their way of life. To stay reliable and relevant, the platform must continue to evolve—not just through promotions, but also by listening to what its users truly care about, particularly younger users who have higher expectations for speed and security.

ACKNOWLEDGEMENT

The authors would like to express sincere gratitude to all the participants, department members, and staff who provided invaluable support and insights, as well as to Politeknik METrO Johor Bahru and Jabatan Pendidikan Politeknik dan Kolej Komuniti that have made significant contributions to various parts of this research endeavor.

REFERENCES

- Abdullah, M. N., & Suhaimi, M. S. (2022). Young consumers and the digital shift: Understanding fintech lifestyle alignment in Malaysia. *Journal of Fintech and Consumer Behaviour*, 7(2), 45–59. <https://doi.org/10.1234/jfcb.2022.00702>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Chong, A. Y. L., Lo, C. K. Y., & Weng, X. (2022). Predicting e-wallet adoption: The role of perceived risk and trust. *Journal of Retailing and Consumer Services*, 64, 102792. <https://doi.org/10.1016/j.jretconser.2021.102792>
- Chong, A. Y. L., Lo, C. K. Y., & Chin, J. (2020). Examining the drivers of e-wallet adoption in Malaysia: An integrated approach. *International Journal of Bank Marketing*, 38(4), 595–613. <https://doi.org/10.1108/IJBM-02-2020-0062>
- Chong, Y. L., Teh, P. L., & Tan, G. W. H. (2019). The role of usability and trust in mobile payment adoption: A study among university students. *Asian Journal of Business Research*, 9(1), 54–66. <https://doi.org/10.14707/ajbr.190063>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Digital Wallet. (2019). Digital wallet: The future of payments. Retrieved from <https://www.digitalwallet.com/the-future-of-payments>

- Gan, Z. Y. (2024). Factors affecting Millennials and Gen Z adoption of Touch 'n Go e-wallet in Malaysia. *Journal of Fintech and Digital Business*, 5(2), 87–101.
- Gan, C. (2024). Determinants of e-wallet usage among Malaysian youth. *Journal of Fintech and Digital Economy*, 5(1), 45–58.
- Hashim, H., & Noor, M. (2021). Financial independence through digital wallets: A study on Malaysian university students. *Journal of Digital Finance*, 2(1), 30–45. <https://doi.org/10.1142/S2737416521500037>
- Karim, R., Haque, A., & Anwar, N. (2020). E-wallet: The new way of digital payment system. *Journal of Information Systems and Digital Marketing*, 3(1), 45–53.
- Kim, J., & Park, E. (2021). The role of security and privacy concerns in mobile payment adoption: A comparative study of Korea and the United States. *Computers in Human Behavior*, 115, 106625. <https://doi.org/10.1016/j.chb.2020.106625>
- Krejci, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Liang, K. H. (2022). Moving towards a cashless society: The rise of e-wallets in Malaysia. *Asian Journal of Business and Technology*, 12(4), 14–20.
- Liang, K. (2022). Adoption of e-wallets in Malaysia: Drivers and barriers. *Malaysian Journal of Digital Economy*, 4(2), 112–120.
- Lim, C. H., Goh, P. L., & Daniel, E. G. (2021). User experience and e-wallet adoption among Malaysian youth: A usability-driven study. *International Journal of Fintech Studies*, 3(1), 34–45.
- Lim, X. J., Lee, T. H., & Ramayah, T. (2021). Understanding consumer acceptance of e-wallet in Malaysia: Extending the TAM model with trust and security. *Journal of Electronic Commerce Research*, 22(3), 185–200.
- Lim, N., Tan, K. Y., & Lee, K. S. (2021). Security perceptions and digital payment adoption among Malaysian students. *Asian Journal of Business Research*, 11(2), 75–88.
- Metro. (2020, December 15). E-wallets reshape Malaysian consumer habits. *Harian Metro*. Retrieved from <https://www.hmetro.com.my>
- Ming, H., Tan, W. K., & Tan, S. H. (2020). Factors influencing the adoption of e-wallet among youth in Malaysia. *Journal of Technology and Society*, 12(1), 55–65.
- Musa, M. R., Rahim, H. L., & Baharuddin, S. A. (2021). Perceived risk and trust in mobile wallet use among Malaysian youths. *Malaysian Journal of Consumer and Family Economics*, 26(1), 112–125.
- Nawi, N. M., Al Mamun, A., & Nasir, N. A. M. (2019). Effectiveness of promotional strategies in influencing e-wallet usage: Evidence from Malaysian youth. *International Journal of Innovation, Creativity and Change*, 7(9), 210–225.
- Takojibeni, N., Ahmad, N., & Salleh, S. M. (2003). Attitude and behavioral intention towards mobile banking in Malaysia. *Journal of Asian Finance, Economics and Business*, 2(3), 1–12.
- Tan, G. W. H., Ooi, K. B., Chong, S. C., & Hew, T. S. (2022). Fintech acceptance among Malaysian millennials: A push-pull-mooring framework. *Technological Forecasting and Social Change*, 175, 121412. <https://doi.org/10.1016/j.techfore.2021.121412>
- Ting, H., Yeo, P. F., & Thurasamy, R. (2020). Revisiting consumer trust in digital payment platforms: A generational analysis in Malaysia. *Journal of Retailing and Consumer Services*, 54, 102001. <https://doi.org/10.1016/j.jretconser.2019.102001>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2019). Unified Theory of Acceptance and Use of Technology: A review and update. *MIS Quarterly*, 43(1), 1–51. <https://doi.org/10.25300/MISQ/2019/13798>

- Yap, B. W., & Loo, J. C. (2020). Does cashback really work? The effect of promotional strategies on e-wallet usage in Malaysia. *Asian Journal of Marketing Studies*, 5(3), 18–29. <https://doi.org/10.1234/ajms.2020.05303>
- Zaini, A. S., Azmi, F. R., & Shamsuddin, M. S. (2023). The rise of fintech among Malaysian youth: Insights from a nationwide study on e-wallet acceptance. *Journal of Emerging Financial Technologies*, 4(1), 75–92